(19) World Intellectual Property Organization

International Bureau



(43) International Publication Date 28 July 2005 (28.07.2005)

(10) International Publication Number WO 2005/067678 A2

(51) International Patent Classification: Not classified

(21) International Application Number:

PCT/US2005/000073

(22) International Filing Date: 5 January 2005 (05.01.2005)

(25) Filing Language:

(26) Publication Language: English

(30) Priority Data:

60/534,112 5 January 2004 (05.01.2004) US 60/542,278 9 February 2004 (09.02.2004) US 60/640,213 3 January 2005 (03.01.2005) US

- (71) Applicant (for all designated States except US): BLACK-LIGHT POWER, INC. [US/US]; 493 Old Trenton Road, Cranbury, NJ 08512 (US).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): MILLS, Randell, L. [US/US]; 27 Rosedale Road, Princeton, NJ 08540 (US).
- Agent: MELCHER, Jeffrey, S.; Manelli Denison & Selter, PLLC, 7th Floor, 2000 M Street, N.W., Washington, DC 20036-3307 (US).

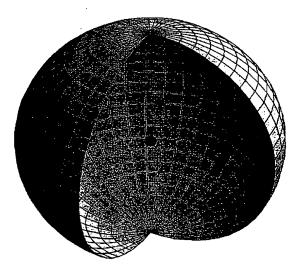
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

without international search report and to be republished upon receipt of that report

[Continued on next page]

(54) Title: METHOD AND SYSTEM OF COMPUTING AND RENDERING THE NATURE OF ATOMS AND ATOMIC IONS



(57) Abstract: A method and system of physically solving the charge, mass, and current density functions of atoms and atomic ions using Maxwell's equations and computing and rendering the nature of bound using the solutions. The results can be displayed on visual or graphical media. The display can be static or dynamic such that electron spin and rotation motion can be displayed in an embodiment. The displayed information is useful to anticipate reactivity and physical properties. The insight into the nature of bound electrons can permit the solution and display of other atoms and atomic ions and provide utility to anticipate their reactivity and physical properties.

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.